AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Claims 1–3. (Canceled)

Claim 4. (Currently amended): A mask pattern correction method used to form a desired pattern on a wafer by a projection optical system, comprising:

~~the~~ a step of extracting a correction target edge from a design pattern;

~~the~~ a step of calculating a length of the extracted correction target edge;

~~the~~ a first step of calculating correction value determined one-dimensionally by pattern layout perpendicular to the correction target edge when the length of the correction target edge calculated in the previous step is not smaller than a predetermined critical length; and

~~the~~ a second step of calculating correction value determined two-dimensionally by pattern layout around the correction target edge when the length of the correction target edge calculated in the previous step is smaller than a predetermined critical length,

the first step including:

~~the~~ a distance calculation step of calculating a distance S from target edge to a nearest edge of ~~a~~ an adjacent pattern perpendicularly;

~~the~~ a step of calculating the correction value by one-dimensional simulation according to pattern layout perpendicular to the correction target edge, moving the

correction target edge on ~~the~~ a basis of the calculated correction value when the calculated distance S is smaller than a predetermined critical value S'; and

~~the~~ a step of moving the correction target edge on the basis of ~~an~~ a correction value set as a rule in advance using as a parameter at least one of the distance S, a line width W of the pattern including the correction target edge, and a line width W' of a pattern including an edge adjacent to the correction target edge when the calculated distance S is not smaller than the critical value S', and

the second step including:

~~the~~ a distance calculation step of calculating a distance sp from the correction target edge to a nearest edge in ~~the~~ a perpendicular direction, and calculating a distance sh to a nearest edge in ~~the~~ a direction of length;

~~the~~ a step of calculating the correction value by two-dimensional simulation according to pattern layout around the correction target edge, and moving the correction target edge on the basis of the calculated correction value when at least either one of the distances sp and sh calculated in the distance calculation step is smaller than a corresponding one of predetermined distances sp' and sh'; and

~~the~~ a step of moving the correction target edge on ~~the~~ a basis of an edge moving amount set as a rule in advance using as a parameter at least one of the distances sp and sh, the line width W of the pattern containing the correction target edge, and line widths wp and wh of patterns adjacent to the correction target edge when the calculated distance sp is not smaller than the critical distance sp', and the calculated distance sh is not smaller than the critical distance sh'.

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Claims 5–8. (Canceled)